

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

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NEW YORK STATE RESTAURANT  
ASSOCIATION,

Plaintiff,

-against-

NEW YORK CITY BOARD OF HEALTH, NEW  
YORK CITY DEPARTMENT OF HEALTH AND  
MENTAL HYGIENE, and THOMAS R. FRIEDEN,  
in His Official Capacity as Commissioner of the  
New York City Department of Health and Mental  
Hygiene,

Defendants.

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No. 07-CIV-05710 (RJH)

**NOTICE OF FILING**

PLEASE TAKE NOTICE THAT the Center for Science in the Public Interest,  
one of the *amici* in this case, files the attached declaration of its Director of Nutrition  
Dr. Margo Wootan, to assist the Court in its review of the facts relating to Plaintiff's  
request for a preliminary injunction.

Dated: July 16, 2007

Respectfully submitted,

Center for Science in the Public Interest  
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By:



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Stephen Gardner, Director of Litigation

**Certificate of Service**

This Notice and the attached declaration were served on counsel for the parties, on July 16, 2007, in accordance with the Federal Rules of Civil Procedure and the Local Rules, using the Court's Electronic Case Filing system:

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A handwritten signature in blue ink, appearing to read "Stephen Gardner", with a long horizontal flourish extending to the right.

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Stephen Gardner

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

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**NEW YORK STATE RESTAURANT  
ASSOCIATION,**

**No. 2007 Civ. \_\_\_\_\_**

**Plaintiff,**

**against-**

**NEW YORK CITY BOARD OF HEALTH,  
NEW YORK CITY DEPARTMENT OF HEALTH  
AND MENTAL HYGIENE, and Thomas R. Frieden,  
In His Official Capacity as Commissioner  
Of the New York State [sic] Department of Health  
And Mental Hygiene,**

**DECLARATION OF  
MARGO G. WOOTAN**

**Defendants.**  
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MARGO G. WOOTAN, D.Sc. hereby declares under penalty of perjury:

1. I am the director of Nutrition Policy at the Center for Science in the Public Interest ("CSPI"), one of the country's leading health advocacy organizations that specializes in nutrition and food safety. I have worked at CSPI for more than fourteen years. I hold a Bachelors of Science in nutrition from Cornell University and a doctorate in nutrition from Harvard School of Public Health. As CSPI's nutrition policy director, I co-founded and coordinate the activities of the National Alliance for Nutrition and Activity, the largest nutrition and physical activity coalition in the country, and am a member of the Steering Committee and the co-chair of the Policy Subcommittee for the National Fruit and Vegetable Partnership, a public-private partnership that leads the nation's efforts to promote fruit and vegetable intake. In addition, I was a supporting participant in the Keystone Forum on Away-from-Home Foods, which was funded and

convened by the U.S. Food and Drug Administration. The purpose of the Keystone Forum was to consider what can be done to support consumers' ability to manage calorie intake and prevent weight gain and obesity from eating out.

2. Americans' diets are contributing to health problems ranging from obesity to cancer. Nutrition labeling on food packages helps millions of people, but when people eat out, restaurants rarely provide nutrition information at the point where people are ordering. Yet studies show that in the absence of nutrition information it is difficult for people to estimate the calorie content of restaurant meals. Without menu labeling, how are people to know that a tuna sandwich at a typical deli has 50% more calories than a roast beef sandwich? Or that a grilled chicken sandwich at McDonald's has as many calories as a Quarter Pounder?

3. Because restaurants have not acted on their own, government should fulfill its responsibility to enable consumers to make informed choices. Unfortunately, the federal government has done nothing to ensure that consumers have nutrition information in restaurants. New York City's menu labeling requirement is an important step toward addressing obesity and supporting informed food choices and healthy eating.

**Obesity is one of the most pressing health problems in the United States**

4. Over the last 25 years, obesity rates doubled among U.S. adults and tripled in children and teens.<sup>1</sup> Overweight and obesity affect the majority of American adults (66%).

5. Obesity is a serious public health threat and a leading cause of death. A 2005 study by the Centers for Disease Control and Prevention ("CDC") estimated that

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<sup>1</sup> Ogden C, et al. "Prevalence of Overweight and Obesity in the United States, 1999-2004." *Journal of the American Medical Association* 2006, vol. 295, pp. 1549-1555.

approximately 112,000 deaths are associated with obesity each year in the United States.<sup>2</sup>

That makes obesity the second leading contributor to premature death (the first is tobacco). It is equivalent to a jetliner full of 300 people crashing every day.

6. Diabetes rates have risen along with obesity rates. The number of Americans with diabetes more than doubled (from 5.8 million to 14.7 million) between 1980 and 2004.<sup>3</sup> More than 60% of people with diabetes are under 65 years old. Between 50% and 80% of diabetes cases are associated with obesity, unhealthy eating patterns, and sedentary lifestyles.<sup>4</sup> Obesity also increases the risk of heart attacks, strokes, arthritis-related disability, and cancer.<sup>5</sup>

#### **Calorie content is the nutrition information most relevant to obesity**

7. While calorie content is not the only nutrition information important to health, it is the nutrition information directly relevant to obesity. The *Dietary Guidelines for Americans*, the basis of national nutrition advice, programs, and policy, concluded “to maintain body weight in a healthy range, balance calories from foods and beverages with calories expended.”<sup>6</sup> It is total calories that contribute to weight gain – not other nutrients, such as calcium, iron, potassium, and Vitamins A and C. Given the pressing nature of the obesity problem, the New York City Board of Health’s decision to require menus and menu boards to list calories is sound public health policy.

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<sup>2</sup> Flegal KM, et al. “Excess Deaths Associated with Underweight, Overweight, and Obesity.” *Journal of the American Medical Association* 2005, vol. 293, pp. 1861-1867.

<sup>3</sup> Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Health Interview Statistics. *Data & Trends, National Diabetes Surveillance System, Prevalence of Diabetes*. Accessed at <<http://www.cdc.gov/diabetes/statistics/prev/national/tablepersons.htm>> on February 28, 2006.

<sup>4</sup> Hu F, et al. “Diet, Lifestyle, and the Risk of Type 2 Diabetes Mellitus in Women.” *The New England Journal of Medicine*, 2001, vol. 345, pp. 790-797.

<sup>5</sup> U.S. Department of Health and Human Services. *The Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity 2001*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001.

<sup>6</sup> U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2005*. Washington, DC: USDA and HHS, January 2005.

8. However, we agree with the NYSRA that other aspects of nutrition are important to health. Saturated and trans fat contribute to heart disease, too much sodium contributes to high blood pressure, and not enough fruits and vegetables contributes to high blood pressure and heart disease. However, the New York City Board of Health has chosen to focus menu labeling on the fastest-growing and most wide-spread nutrition-related health problem in the city: obesity and its consequences. In addition, the New York City menu labeling regulations do not prohibit restaurants from providing additional nutrition information. Restaurants are free to list other nutrition information they feel is important, as long as it is in addition to calories. Additional nutrition information could be listed on the menu or through other communications materials and approaches.

9. We further agree with the NYSRA that numerous factors contribute to obesity. Those include soft drink consumption, large portion sizes (which are a problem not only at restaurants), community design and transportation infrastructure that inhibit walking and biking, too little physical activity for children at school, personal food choices, etc. However, each policy implemented by the city does not need to address each contributor. New York City is pursuing other policy options to address other contributors to obesity and to address other nutrition-related health problems, such as diabetes and heart disease. Similarly, other factors contribute to good health. The city cannot be expected to have every nutrition policy also address smoking, brushing teeth, injury prevention, and other important health behaviors.

**Restaurant foods are a significant and growing part of Americans' diets**

10. Americans are increasingly relying on restaurants to feed themselves and their families. In 1970, Americans spent just 26% of their food dollars on restaurant meals and

other foods prepared outside their homes.<sup>7</sup> Today, we spend almost half (46%) of our food dollars on away-from-home foods.<sup>8</sup> American adults and children obtain about one-third of their calories from restaurants and other food-service establishments.<sup>9</sup>

**Restaurant food portions commonly are large, and caloric content is typically higher than food consumed at home**

11. Americans are eating more calories than two decades ago, which is likely due in part to increases in eating out. Studies link eating out with higher caloric intakes and higher body weights or fatness (see Appendix A for a summary of studies).<sup>10,11,12,13,14,15,16</sup>

12. Children eat almost twice as many calories when they eat a meal at a restaurant (770 calories) compared to a meal at home (420 calories).<sup>17</sup> Women who eat out more often (more than 5 times a week) consume about 290 more calories on average

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<sup>7</sup> Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.

<sup>8</sup> National Restaurant Association (NRA). "Industry at a Glance." Accessed at <[http://www.restaurant.org/research/ind\\_glance.cfm](http://www.restaurant.org/research/ind_glance.cfm)> on April 12, 2002.

<sup>9</sup> Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.

<sup>10</sup> Zoumas-Morse C, Rock CL, Sobo EJ, Neuhouser ML. "Children's Patterns of Macronutrient Intake and Associations with Restaurant and Home Eating." *Journal of the American Dietetic Association* 2001, vol. 101, pp. 923-925.

<sup>11</sup> Pereira, MA, et al. "Fast-Food Habits, Weight Gain, and Insulin Resistance (The CARDIA Study): 15-year Prospective Analysis." *Lancet* 2005, vol. 365, pp. 36-42.

<sup>12</sup> Thompson OM, et al. "Food Purchased Away from Home as a Predictor of Change in BMI z-score among Girls." *International Journal of Obesity* 2004, vol. 28, pp. 282-289.

<sup>13</sup> Binkley JK, et al. "The Relation between Dietary Change and Rising U.S. Obesity." *International Journal of Obesity* 2000, vol. 24, pp. 1032-1039.

<sup>14</sup> Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American Journal of Public Health* 1998, vol. 88, pp. 277-280.

<sup>15</sup> McCrory MA, Fuss PJ, Saltzman E, Roberts SB. "Dietary Determinants of Energy Intake and Weight Regulation in Healthy Adults." *Journal of Nutrition* 2000, vol. 130 (Supplement), pp. 276S-279S.

<sup>16</sup> McCrory MA, Fuss PJ, Hays NP, Vinken AG, Greenberg AS, Roberts SB. "Overeating in America: Associations between Restaurant Food Consumption and Body Fatness in Healthy Adult Men and Women Ages 19 to 80." *Obesity Research* 1999, vol. 7, pp. 564-571.

<sup>17</sup> Zoumas-Morse C, Rock CL, Sobo EJ, Neuhouser ML. "Children's Patterns of Macronutrient Intake and Associations with Restaurant and Home Eating." *Journal of the American Dietetic Association* 2001, vol. 101, pp. 923-925.

each day than women who eat out less often.<sup>18</sup> Furthermore, eating more fast-food meals is linked to eating more calories, more saturated fat, fewer fruits and vegetables, and less milk.<sup>19,20,21,22,23,24</sup>

13. Foods that people obtain from restaurants and other food-service establishments are generally higher in calories than home-prepared foods.<sup>25,26,27,28</sup> It is not uncommon for a restaurant entree to provide half of a day's recommended calories.<sup>29</sup> Include an appetizer, beverage *or* dessert, and it is easy to consume a whole day's calories in a single meal. No one would mistake a typical order of cheese fries with ranch dressing for a health food, but few would guess that a typical serving uses up one-and-a-

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<sup>18</sup> Clemens LH, et al. "The Effect of Eating Out on Quality of Diet in Premenopausal Women." *Journal of the American Dietetic Association* 1999, vol. 99, pp. 422-444.

<sup>19</sup> Schmidt M, et al. "Fast-Food Intake and Diet Quality in Black and White Girls." *Archives of Pediatric and Adolescent Medicine* 2004, vol. 159, pp. 626-631

<sup>20</sup> S.A. Bowman and B.T. Vinyard. "Fast-Food Consumers vs. Non-Fast-Food Consumers: A Comparison of Their Energy Intakes, Diet Quality, and Overweight Status." *Journal of the American College of Nutrition* 2004, vol. 23, pp. 163-168.

<sup>21</sup> S. Paeratakul, et al. "Fast-Food Consumption among U.S. Adults and Children: Dietary and Nutrient Intake Profile." *Journal of the American Dietetic Association* 2003, vol. 103, pp. 1332-1338.

<sup>22</sup> Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American Journal of Public Health* 1998, vol. 88, pp. 277-280.

<sup>23</sup> French SA, Story M, Neumark-Sztainer D, Fulkerson JA, Hannan P. "Fast Food Restaurant Use among Adolescents: Associations with Nutrient Intake, Food Choices and Behavioral and Psychosocial Variables." *International Journal of Obesity* 2001, vol. 25, pp. 1823-1833.

<sup>24</sup> McNutt SW, Hu Y, Schreiber GB, Crawford PB, Obarzanek E, Mellin L. "A Longitudinal Study of the Dietary Practices of Black and White Girls 9 and 10 Years Old at Enrollment: The NHLBI Growth and Health Study." *Journal of Adolescent Health* 1997, vol. 20, pp. 27-37.

<sup>25</sup> Lin B, Guthrie J, Frazao E. *Away-From-Home Foods Increasingly Important to Quality of American Diet*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, 1999. Agriculture Information Bulletin No. 749.

<sup>26</sup> Jeffery RW, French SA. "Epidemic Obesity in the United States: Are Fast Food and Television Viewing Contributing?" *American Journal of Public Health* 1998, vol. 88, pp. 277-280.

<sup>27</sup> Ma Y, Bertone ER, Stanek III EJ, Reed GW, Hebert JR, Cohen NL, Merriam PA, Ockene IS. "Association between Eating Patterns and Obesity in a Free-living US Adult Population." *American Journal of Epidemiology* 2003, vol. 158, pp. 85-92.

<sup>28</sup> McCrory MA, Fuss PJ, Hays NP, Vinken AG, Greenberg AS, Roberts SB. "Overeating in America: Associations between Restaurant Food Consumption and Body Fatness in Healthy Adult Men and Women Ages 19 to 80." *Obesity Research* 1999, vol. 7, pp. 564-571.

<sup>29</sup> Jacobson MF, Hurley JG. *Restaurant Confidential*. New York, NY: Workman Publishing, 2002.

half-day's worth of calories (3,010 calories).<sup>30</sup> A large milk shake from McDonald's has over 1,000 calories, about a half-a-day's worth.<sup>31</sup>

14. It is common for restaurants to serve two to three times more than what is considered a standard serving size. A Double Gulp soft drink from 7-Eleven contains six servings, meaning it provides six times as many calories as a standard serving of soft drink. A porterhouse steak from a typical steak house restaurant weighs more than a pound.<sup>32</sup>

**Without nutrition information, consumers cannot accurately assess the calorie content of restaurant foods**

15. Without nutrition information, consumers substantially underestimate the levels of calories found in many less healthful menu items.<sup>33,34</sup> For instance, who would guess that a smoked turkey sandwich (930 calories) at Chili's has more calories than a sirloin steak (540 calories), or that on the children's menu, an order of chicken tenders (590 calories) has more calories than the baby back ribs (370 calories).<sup>35</sup>

16. A representative, state-wide telephone poll in California found that few Californians are able to identify from among typical fast-food and other chain restaurant

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<sup>30</sup> Jacobson, M.F., Hurley, J.G. *Restaurant Confidential*. Workman Publishing, New York, NY, 2002.

<sup>31</sup> McDonald's Corporation. *McDonald's USA Nutrition Information*. Accessed at [http://www.mcdonalds.com/usa/eat/nutrition\\_info.html](http://www.mcdonalds.com/usa/eat/nutrition_info.html) on July 10, 2007.

<sup>32</sup> Jacobson, M.F., Hurley, J.G. *Restaurant Confidential*. Workman Publishing, New York, NY, 2002.

<sup>33</sup> Burton S, Creyer EH, Kees J, Huggins K. "Attacking the Obesity Epidemic: An Examination of the Potential Health Benefits of Nutrition Information Provision in Restaurants." *American Journal of Public Health*, 2006, forthcoming.

<sup>34</sup> Johnson WG, Corrigan SA, Schlundt DG, Dubbert PM. "Dietary Restraint and Eating Behavior in the Natural Environment." *Addictive Behaviors* 1990, vol. 15, pp. 285-290.

<sup>35</sup> Chili's Bar and Grill. *Nutritional Info*. Accessed at [http://www.brinker.com/gr/nutritional/chilis\\_nutrition\\_menu.pdf](http://www.brinker.com/gr/nutritional/chilis_nutrition_menu.pdf) on July 10, 2007.

menu items those with the fewest/most calories, salt, or fat.<sup>36</sup> Not a single respondent answered all four questions correctly. Less than 1 percent answered three of four questions correctly, only 5 percent answered two of the four questions correctly, and nearly 68 percent were unable to answer even one question correctly. Scores were equally poor regardless of education or income levels. Analogous results were found from a similar state-wide poll in Connecticut.<sup>37</sup>

17. One study demonstrated that even trained nutrition professionals cannot accurately estimate the calorie content of typical restaurant meals shown to them.<sup>38</sup> They consistently underestimated the calories, and their estimations were off by large amounts – by 200 to 600 calories. For example, when shown a typical dinner-house hamburger and onion rings, the dietitians, on average, estimated that it had 865 calories, when it actually contained 1,550 calories.

**When provided, many consumers use nutrition information to make healthier choices**

18. Since 1994, the Nutrition Labeling and Education Act (NLEA) has required food manufacturers to provide nutrition information on nearly all packaged foods. Three-quarters of adults report using packaged food labels.<sup>39</sup> Using nutrition labels is

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<sup>36</sup> California Center for Public Health Advocacy. Statewide poll on March 20-31, 2007 conducted by Field Research Corporation of 523 registered California voters. Accessed at [www.publichealthadvocacy.org/menulabelingpoll.html](http://www.publichealthadvocacy.org/menulabelingpoll.html) on June 20, 2007.

<sup>37</sup> End Hunger Connecticut. State-wide poll conducted between April 17 and April 23, 2007 by the Center for Survey Research and Analysis at the University of Connecticut of 501 Connecticut residents. Accessed at [www.endhungerct.org/PDF/pollresults.pdf](http://www.endhungerct.org/PDF/pollresults.pdf) on June 20, 2007.

<sup>38</sup> Backstrand J, Wootan MG, Young LR, Hurley J. *Fat Chance*. Washington, DC: Center for Science in the Public Interest, 1997.

<sup>39</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. *Healthy People 2000 Final Review*. Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2001. DHHS Publication No. 01-0256.

associated with eating more-healthy diets,<sup>40,41,42</sup> and almost half of consumers report that the nutrition information on food labels has caused them to change their minds about buying a food product.<sup>43</sup> Studies also show that the provision of nutrition information at restaurants can help people make lower-calorie choices (See Appendix B).

**Menu labeling is unlikely to confuse consumers, as claimed by the NYSRA**

19. People are accustomed to using nutrition labeling on packaged foods and want it on menus.<sup>44</sup> In addition, FDA consumer research finds that people primarily use food labels on packaged foods to make side-by-side comparisons of items within similar product categories (for example, to compare the calories in two different brands of ice cream). Such comparisons may be easier to make via menu labeling than using food labeling in grocery stores, because there are fewer items on menus (dozens to one or two hundred) than in grocery stores (tens of thousands) and items are listed together in a common place on menus rather than scattered over a large area in the grocery store.

20. With menu labeling, restaurant customers will be able to determine that:

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<sup>40</sup> Kim SY, Nayga RM, Capps O. "The Effect of Food Label Use on Nutrient Intakes: An Endogenous Switching Regression Analysis." *Journal of Agricultural and Resource Economics* 2000, vol. 25, pp. 215-231.

<sup>41</sup> Kreuter MW, Brennan LK, Scharff DP, Lukwago SN. "Do Nutrition Label Readers Eat Healthier Diets? Behavioral Correlates of Adults' Use of Food Labels." *American Journal of Preventive Medicine* 1997, vol. 13, pp. 277-283.

<sup>42</sup> Neuhouser ML, Kristal AR, Patterson RE. "Use of Food Nutrition Labels Is Associated with Fat Intake." *Journal of the American Dietetic Association* 1999, vol. 99, pp. 45-50, 53.

<sup>43</sup> Levy AS, Derby BM. *The Impact of the NLEA on Consumers: Recent Findings from FDA's Food Label and Nutrition Tracking System*. Washington, DC: Center for Food Safety and Applied Nutrition, Food and Drug Administration, 1996.

<sup>44</sup> Food and Drug Administration. *The Keystone Forum on Away-From-Home Foods: Opportunities for Preventing Weight Gain and Obesity*. Rockville, Maryland: Food and Drug Administration, May 2006, Appendix H.

- Two jelly-filled doughnuts at Dunkin' Donuts have fewer calories than a sesame bagel with cream cheese;<sup>45</sup>
- A Frappuccino at Starbucks can have 200 more calories than the same size cappuccino;<sup>46</sup> or
- A whole fried onion appetizer at a typical table service restaurant has 1,300 more calories than the fried mozzarella sticks.<sup>47</sup>

21. In addition, restaurants would be free to put calorie numbers in context on their menus, if they chose to. For example, they could put an informational message on their menus, such as, "A 2,000-calorie daily diet is used as the basis for general nutrition advice; however individual calorie needs may vary."

22. See Appendix C for model Starbucks and Wendy's menus. These model menus demonstrate that providing calories on the menu can be done without being confusing, difficult to read, or cluttering the menu.

### **Product reformulation: a key benefit of nutrition labeling**

23. A key benefit of mandatory nutrition labeling on packaged foods has been the reformulation of existing products and the introduction of new nutritionally improved products.<sup>48</sup> In the first four years after implementation of mandatory nutrition labeling of packaged foods, the number of available fat-modified cheese products tripled and the

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<sup>45</sup> Dunkin' Donuts. *Nutrition Information*. Accessed at <https://dunkindonuts.com/aboutus/nutrition/> on July 10, 2007.

<sup>46</sup> Jacobson, M.F., Hurley, J.G. *Restaurant Confidential*. Workman Publishing, New York, NY, 2002.

<sup>47</sup> Jacobson, M.F., Hurley, J.G. *Restaurant Confidential*. Workman Publishing, New York, NY, 2002.

<sup>48</sup> Silverglade BA. "Food Labeling: Rules You Can Live By." *Legal Times*, July 17, 1995, pp. 21-24.

market share for fat-modified cookies increased from zero percent to fifteen percent.<sup>49</sup> In 2006 when trans fat, which promotes heart disease, was required to be listed on food packages, many companies greatly reduced or eliminated their use of trans-fat-containing oils. In a similar fashion, nutrition labeling on menus and menu boards is likely to spur nutritional improvements in restaurant foods.

**Providing calorie content on menus is likely to provide significant public health benefits**

24. Americans consume an increasing number of calories away from home, restaurant foods are higher in calories than home-prepared meals, and without nutrition labeling, it extremely difficult to accurately assess the number of calories in a restaurant meal. Therefore, it is reasonable to conclude that requiring menu labeling is likely to yield important health and economic benefits.

25. **Federal agencies have estimated significant economic and health benefits from food labeling.** The FDA estimated that requiring trans fat to be listed on packaged food labels would save 2,100 to 5,600 lives a year and \$3 billion to \$8 billion a year.<sup>50</sup> USDA estimated the economic benefits of extending nutrition labeling to fresh meat and poultry to be \$62 million to \$125 million per year.<sup>51</sup>

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<sup>49</sup> Levy AS, Derby BM. *The Impact of the NLEA on Consumers: Recent Findings from FDA's Food Label and Nutrition Tracking System*. Washington, DC: Center for Food Safety and Applied Nutrition, Food and Drug Administration, 1996.

<sup>50</sup> Food and Drug Administration, U.S. Department of Health and Human Services. *Federal Register* 1999, vol. 64, pp. 62772-62774.

<sup>51</sup> Crutchfield S, Kuchler F, Variyam JN. "The Economic Benefits of Nutrition Labeling: A Case Study for Fresh Meat and Poultry Products." *Journal of Consumer Policy* 2001, vol. 24, 185-207.

26. The total U.S. health-care costs due to obesity are \$94 billion a year.<sup>52</sup> Half that cost (\$47 billion) is paid through Medicare and Medicaid. According to the U.S. Department of Agriculture, healthier diets could prevent at least \$71 billion per year in medical costs, lost productivity, and lost lives.<sup>53</sup>

**Experts agree that restaurants should provide nutrition information at the point of ordering**

27. Menu labeling has been recognized by many prominent health experts as an important strategy for addressing nutrition and obesity. The National Academies' Institute of Medicine recommends that restaurant chains "provide calorie content and other key nutrition information on menus and packaging that is prominently visible at point of choice and use."<sup>54</sup> The U.S. Surgeon General has called for "increasing availability of nutrition information for foods eaten and prepared away from home."<sup>55</sup> The Food and Drug Administration through the Keystone Forum on Away-From-Home Foods recommended that restaurants "provide consumers with calorie information in a standard format that is easily accessible and easy to use."<sup>56</sup>

28. A number of prominent national health organizations have endorsed menu labeling as a key strategy to help people make healthier choices in restaurants, including

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<sup>52</sup> Finkelstein EA, Fiebelkorn IC, Wang G. "State-level Estimates of Annual Medical Expenditures Attributable to Obesity." *Obesity Research* 2004, vol. 12, pp. 18-24.

<sup>53</sup> Frazao E. "High Costs of Poor Eating Patterns in the United States." In *America's Eating Habits: Changes and Consequences*. Edited by Elizabeth Frazao. Washington, DC: Economic Research Service, U.S. Department of Agriculture, 1999. Agriculture Information Bulletin No. 750, pp. 5-32.

<sup>54</sup> Koplan JP, Liverman CT, Kraak VA, Editors, Committee on Prevention of Obesity in Children and Youth, Food and Nutrition Board, Institute of Medicine. "Preventing Childhood Obesity: Health in the Balance." Washington, DC: National Academies Press, 2005.

<sup>55</sup> U.S. Department of Health and Human Services. *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001.

<sup>56</sup> Food and Drug Administration. *The Keystone Forum on Away-From-Home Foods: Opportunities for Preventing Weight Gain and Obesity*. Rockville, Maryland: Food and Drug Administration, May 2006, pp. 76-79.

the American Academy of Pediatrics<sup>57</sup>, the American Medical Association<sup>58</sup>, the American Heart Association<sup>59</sup>, AARP<sup>60</sup>, the American Public Health Association<sup>61</sup>, and the Society for Nutrition Education.<sup>62</sup>

**Calories must be listed on menus to be useful and visible to customers**

**29. Public support for nutrition labeling on menus and menu boards is strong.** According to an industry-backed nationally representative poll, 83 percent of Americans believe restaurants should make nutrition information available for all menu items.<sup>63</sup> When asked specifically about requiring chain restaurants to provide nutrition information on menus, state-wide polls in Connecticut and California show that over 80 percent of people support menu labeling.<sup>64,65</sup>

**30. Menu labeling is easier to find and use at the point of ordering than other approaches.** *The Keystone Forum on Away-from-Home Foods*,<sup>66</sup> funded and convened by the U.S. Food and Drug Administration, concluded that restaurants “should provide

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<sup>57</sup> American Academy of Pediatrics. Resolution 6: *Posting of Caloric Content of Foods on Menu Boards of Quick Service Restaurants*, AAP National Leadership Conference 2006/2007.

<sup>58</sup> American Medical Association. *Increasing Customer Awareness of Nutrition Information and Ingredients in Restaurants*. AMA Annual Conference, July 27, 2007.

<sup>59</sup> American Heart Association. *Position Statement on Menu Labeling*. Dallas, Texas, AHA, 2007.

<sup>60</sup> AARP. *Nutrition Labeling at Fast Food and Other Chain Restaurants*. AARP Public Policy Institute, July 2004.

<sup>61</sup> American Public Health Association. *Support for Nutrition Labeling in Fast-Food and Other Chain Restaurants*. Policy Statement, 2004.

<sup>62</sup> Society for Nutrition Education. *Resolution to Support Nutrition Labeling and Nutritionally Improved Menu Offerings in Fast-Food and Other Chain Restaurants*. SNE Annual Meeting, July 2006.

<sup>63</sup> ARAMARK Corp. 2005, nationwide online survey of 5,297 adults. As cited by Nanci Hellmich. “Diners Want More Info and Smaller Entrees.” October 19, 2005. Accessed at [http://www.usatoday.com/news/health/2005-10-19-diners-less-food\\_x.htm](http://www.usatoday.com/news/health/2005-10-19-diners-less-food_x.htm).

<sup>64</sup> California Center for Public Health Advocacy. Statewide poll on March 20-31, 2007 conducted by Field Research Corporation of 523 registered California voters. Accessed at [www.publichealthadvocacy.org/menulabelingpoll.html](http://www.publichealthadvocacy.org/menulabelingpoll.html) on June 20, 2007.

<sup>65</sup> End Hunger Connecticut. State-wide poll conducted between April 17 and April 23, 2007 by the Center for Survey Research and Analysis at the University of Connecticut of 501 Connecticut residents. Accessed at [www.endhungerct.org/PDF/pollresults.pdf](http://www.endhungerct.org/PDF/pollresults.pdf) on June 20, 2007.

<sup>66</sup> Food and Drug Administration. *The Keystone Forum on Away-From-Home Foods: Opportunities for Preventing Weight Gain and Obesity*. Rockville, Maryland: FDA, May 2006.

consumers with calorie information in a standard format that is easily accessible and easy to use.” “Information should be provided in a manner that is easy for consumers to see and use as part of their purchasing and eating decisions.”

31. As a member of the Keystone Forum, I know that there were several key points to that recommendation, including that calorie information be 1) provided in a standardized format, 2) easy to find, and 3) easy to use at the point where people are making purchasing decisions.

32. Currently those restaurants that do provide nutrition information do so in a variety of formats. As a result, customers who are interested in nutrition information do not know where to look to find it.

33. A restaurant is most likely to provide no nutrition information, as is the case for at least half of chain restaurants.<sup>67</sup> The second most common approach is to provide nutrition information on a website or other format that is not available in the restaurant. On-premise nutrition information is provided through posters, pamphlets, handouts, reference book, kiosks, tray liners, table tents, counter signs, napkins, fast-food packages, receipts, or other means. Most of those formats do not permit customers to make informed decisions at restaurants prior to placing their orders. Providing calories on menus and menu boards, as the New York City Board of Health has required, would cut through the current chaos and lack of useful information in the market place by providing a standard, accessible place where consumers can find calorie information in restaurants that must comply with New York City’s regulation.

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<sup>67</sup> Wootan, MG, Osborn, M. “Availability of Nutrition Information from Chain Restaurants in the U.S.” *American Journal of Preventive Medicine* 2006, vol. 30, pp. 266-268.

34. Websites are the most common means by which restaurants provide nutrition information.<sup>68</sup> Although websites are versatile, can be comprehensive, and interactive, they are only accessible to customers with a computer and Internet access and require considerable forethought prior to going to a restaurant. If people had time to go home, log on to the Internet, and study various websites, they might instead just choose to cook their meal at home. Convenience is a key reason people eat out. In addition, because websites organize information differently, nutrition information can be hard to find and use in the absence of standardization.

35. Requiring customers to ask servers to verbally provide nutrition information, although personal and available at the point of purchase, would demand additional training of staff, and vary in its accuracy and helpfulness depending on the server. It also would make it difficult to compare items on the menu.

36. Putting nutrition information on tray liners and fast-food packaging does not present the information to the customer until the food has been ordered and served, regardless of how detailed (or simplified) that information is. People need nutrition information in an accessible and easy-to-read format before they order for it to be helpful in their decision making.

37. Table mats, table tents, pamphlets, and signs on stanchions could be made available at point of purchase, but are easily misplaced or moved to less visible locations. CSPI conducted a study of the availability of nutrition information at McDonald's restaurants in Washington, D.C. in 2005.<sup>69</sup> We chose McDonald's because it is the

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<sup>68</sup> Wootan, MG, Osborn, M. "Availability of Nutrition Information from Chain Restaurants in the U.S." *American Journal of Preventive Medicine* 2006, vol. 30, pp. 266-268.

<sup>69</sup> Wootan MG, Osborne M, Malloy C. "Availability of Point of Purchase Nutrition Information at a Fast Food Restaurant." *Preventive Medicine* 2006, vol. 43, pp. 458-459.

largest chain restaurant in the country and has a longstanding practice of providing nutrition information to its customers. We found that even at the largest chain restaurant in the country, nutrition information at the point of decision-making is often difficult to find or completely absent. Forty percent of the McDonald's outlets did not provide in-store nutrition information for a majority of their menu items. In 62% of the restaurants, it was necessary to ask two or more employees in order to obtain a copy of that information.

38. Some restaurants provide posters, signs, stanchions, and electronic kiosks for customers to use prior to ordering, however these approaches to information-sharing require additional time and effort from customers to track down and read and do not allow people to consider both calorie information and price together. When price and nutrition information are not in the same place, consumers cannot make tradeoffs between nutrition and cost. This approach also puts an extra burden on people who want to make informed choices; they become the exception rather than the norm (i.e., it does not "make the healthy choice the easy choice," as some health officials put it). Yet polls show that the overwhelming majority of people want restaurants to provide nutrition information.<sup>70</sup>

39. Several approaches to providing nutrition information, including kiosks, on-package labeling, and having servers provide nutrition information verbally, do not present the information in a way that allows people to easily compare nutrition information of different menu items. That is the key way people use nutrition labeling on packaged foods.

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<sup>70</sup> Food and Drug Administration. *The Keystone Forum on Away-From-Home Foods: Opportunities for Preventing Weight Gain and Obesity*. Rockville, Maryland: Food and Drug Administration, May 2006, Appendix H.

40. We are skeptical of some restaurants' contention that they do not want to provide nutrition information on menu boards because it will slow down the line and ordering. Providing information on counter mats or in brochures at the counter, which several restaurants argue is a more favorable approach, would cause greater delays than information on menu boards. People would not have access to such information until they reached the counter to order, whereas with calories on menu boards, they could make their decision while waiting on line. In addition, Hector Munoz of Burger King wrote in his declaration (p.3) "that customers tend to finalize their food purchasing decisions before they reach the counter."

41. **Restaurants contend that "menus and menu boards are among the most important ways that restaurants communicate with their customers."** The restaurant industry seems agreeable to the idea of providing calorie information in almost any format except the most effective way – on the menu. The NYSRA wrote (p.29 of their motion) that "providing comprehensive nutritional information (including calories) on (i) counter mats; (ii) tray liners; (iii) brochures placed by cash registers; or (iv) on separate billboards, posters, or stanchions" are alternatives that "give consumers similar access to calorie information in a manner less likely to be offensive to restaurants."

42. At the same time, restaurants also state that "menus and menu boards are among the most important ways that restaurants communicate with their customers" (p.22). Hector Munoz of Burger King Corporation, in his declaration on this matter (p.2), wrote:

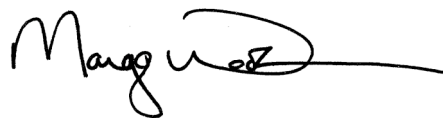
The menu board is the single most valued piece of real estate in a Burger King restaurant. It is the most important way we communicate with our customers in the store about the products we offer and their price; it is what our customers look at, and it is what stimulates their decision to buy.

43. The New York City Board of Health rightly requires that nutrition information be provided where customers get other information about what to order, including the menu options, product descriptions, and price.

44. Calorie information is too important to New Yorkers' health to relegate to hard-to-find pamphlets or kiosks or to tray liners or packaging that people do not receive until after they order their food. Calorie information should be provided in the most user-friendly manner, which is on the menu or menu board. In studies going back over thirty years, research has shown that in a cafeteria setting signs immediately adjacent to foods indicating the calorie content of those foods can significantly decrease the number of calories that people purchase.<sup>71</sup> More recently, studies have specifically linked more healthful choices with calories placed directly on the menu.<sup>72,73</sup>

I declare under penalty of perjury that the foregoing is true and correct.

Executed July 12, 2007

A handwritten signature in black ink, appearing to read "Margo Wootan", with a long horizontal flourish extending to the right.

Margo G. Wootan, D.Sc.

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<sup>71</sup> Milich R, Anderson J, Mills M. "Effects of Visual Presentation of Caloric Values on Food Buying by Normal and Obese Persons." *Perceptual and Motor Skills* 1976, vol. 42, pp. 155-162.

<sup>72</sup> Burton S, Creyer EH. "What Consumers Don't Know Can Hurt Them: Consumer Evaluations and Disease Risk Perceptions of Restaurant Menu Items." *Journal of Consumer Affairs* 2004, vol. 38, no. 1, pp. 121-145.

<sup>73</sup> Kozup KC, Creyer EH, Burton S. "Making Healthful Food Choices: The Influence of Health Claims and Nutrition Information on Consumers' Evaluations of Packaged Food Products and Restaurant Menu Items." *Journal of Marketing* 2003, vol. 67, pp. 19-34.

## Appendix A: Research Regarding the Association of Away-from-Home Foods and Body Weight

*The following is a brief annotated bibliography of sources regarding the association between away-from-home foods and overweight/obesity, as reviewed in a presentation by Dr. Alice Lichtenstein of Tufts University at the April 26-27, 2005 meeting for the Food and Drug Administration (FDA) for the Keystone Forum on Away-From-Home Foods: Opportunities for Preventing Weight Gain and Obesity. Please note that studies use different terms for away-from-home foods establishments; including “restaurants,” “away-from-home food outlets,” and “quick-service” or “fast-food restaurants.” Furthermore, researchers may define these terms differently. Thus, one should consult the individual studies for more detail and clarity.*

1. Binkley, JK et al. “The Relation between Dietary Change and Rising U.S. Obesity.” International Journal of Obesity 2000;24:1032-1039. Using CSFII data from 1994 to 1996, the researchers found that source of food is a significant determinant of Body Mass Index (BMI). This association was shown for both restaurants generally and fast-food outlets specifically. For females, the correlation was significant for fast-food outlets only but for males, the correlation was significant for restaurants generally as well as fast-food outlets specifically.
2. Bowman, SA et al. “Effects of Fast-Food Consumption on Energy Intake and Diet Quality among Children in a National Household Survey.” Pediatrics 2004;113:112-132. Using CSFII data from 1994 to 1996 and the Supplemental Children’s Survey from 1998, the researchers found for four to nineteen year olds, thirty percent (30%) of the sample population consumed fast food on a typical day. Those who ate fast food consumed more calories per gram of food and had poorer diet quality. The higher fast food consumption was associated with males, older children, higher household income, non-Hispanic Afro-Americans, and residence in the South.
3. Bowman, SA et al. “Fast-Food Consumption of U.S. Adults: Impact on Energy and Nutrient Intakes and Overweight Status.” American College of Nutrition 2004;23:163-168. Using CSFII data from 1994 to 1996, the researchers found that 25% of adults reported eating fast food. The study found that such fast food provided greater than 33% of total calorie intake and found a positive association between fast-food consumption and overweight status.
4. Clemens, LH et al. “The Effect of Eating Out on Quality of Diet in Premenopausal Women.” Journal of the American Dietetic Association 1999: 99:422-444. The study group was composed of premenopausal women. Groups were categorized as “low eating out” for meals consumed out five times or less per week and “high eating out” for meals consumed out six to thirteen times per week. The researchers found eating out frequency associated with higher intakes of calories, fat, and sodium.

5. Ebbeling, CB et al. "Compensation for Energy Intake from Fast Food among Overweight and Lean Adolescents." JAMA 2004: 291:2828-2833. In the first part of this study, the participants were instructed to eat as much or little as they desired in a one-hour period in a food-court setting. The participants, thirteen to seventeen years old, had large caloric intake (1652 calories) and overweight participants ate more than leaner counterparts in both absolute terms as well as in estimated daily calorie requirements. In the second part of this study, caloric intake was determined for participants under "free-living" conditions for two days when fast food was eaten and not eaten. The researchers found that overweight adolescents consumed significantly more total calories on fast food days (almost 18% more). Lean adolescents had no significance difference in total calorie intake between fast food and non-fast food days.
6. French, SA et al. "Fast Food Restaurant Use among Women in the Pound of Prevention Study: Dietary, Behavioral and Demographic Correlates." International Journal of Obesity 2000;24:1353-1359. This three year prospective intervention trial found that frequency of fast-food restaurant use was associated with higher caloric intakes and higher fat intake (as percent of calories) and lower consumption of fiber and fruit. The frequency of fast-food restaurant use was also positively associated with younger women, those with lower income, and those with non-White ethnicity.
7. Guthrie, JF et al. "Role of Food Prepared Away from Home in the American Diet, 1977-78 Versus 1994-96: Changes and Consequences." Society for Nutrition Education 2002;34:140-150. Using data from 1977-78 NFCS and 1994 to 1996 CSFII data, the researchers found changes in source of calories consumed over time. Food prepared away from home (restaurants, schools, daycare, or other) increased from 18% to 34% of total calories. Meals and snacks prepared away from home contained more calories per eating occasion and those meals and snacks were higher in fat and saturated fat and lower in fiber, calcium and iron per calorie consumed.
8. Jeffery, RW and French SA. "Epidemic Obesity in the United States: Are Fast Foods and Television Viewing Contributing?" American Journal Public Health 1998: 88:277-280. The study considered the correlation between fast-food intake and energy intake and body mass (the study also looked at TV, VCR, and cable TV watching). Recruitment was done via the USDA Women, Infants, and Children program (WIC) for those not pregnant one year prior to or following WIC enrollment. Total calorie intake and BMI were positively associated with fast-food consumption.
9. Lin, BH et al. Diets of America's Children: Influence of Dining out, Household Characteristics, and Nutrition Knowledge. Washington, DC: USDA, 1996. Ag Economic Report No. 726. Using data from USDA's 1989-91 Continuing Survey of Food Intakes by Individuals and the Diet

and Health Knowledge Survey, USDA researchers found that the foods that children eat from fast-food and other restaurants are higher in fat and saturated fat and lower in fiber, iron, calcium, and cholesterol than foods from home.

10. Maddock, J. "The Relationship between Obesity and the Prevalence of Fast-Food Restaurants: State-Level Analysis." American Journal of Health Promotion 2004: 19:137-143. The researchers consider state-level data on percent of population which is obese, fast-food restaurants per square mile, and self-reported behaviors from physical activity to fruit and vegetable consumption. The study found state levels of obesity inversely related to the number of residents per fast-food restaurant density and the number of square miles per fast food establishment. Other factors associated with obesity were income, fruit and vegetable intake, and percentage population of African-Americans.
11. Manchino, L et al. "The Role of Economics in Eating Choices and Weight Outcomes." USDA, Economic Research Service, WDC 2004. Ag Info Bulletin No. 791. The researchers used data from USDA's 1994-96 Continuing Survey of Food Intakes by Individuals and the 1994-96 Diet and Health Knowledge Survey. The researchers found that overweight and obese women go significantly longer intervals between meals than healthy-weight women, and receive more of their daily calories from fast-food restaurants.
12. McCrory, MA et al. "Overeating in America: Association between Restaurant Food Consumption and Body Fatness in Healthy Adult Men and Women Ages 19 to 80." Obesity Research 1999: 7:564-571. The study group was comprised of "healthy" men and women. Restaurant consumption averaged 7.5 times per month. After controlling for age and gender, frequency of restaurant consumption was associated positively with body fatness (as measured by underwater weights). The association was unaltered after controlling for education, smoking status, and alcohol intake. The association increased after controlling for physical activity.
13. Paeratakul, S et al. "Fast-food Consumption among U.S. Adults and Children: Dietary and Nutrient Intake Profile." Journal of the American Dietetic Association 2003;103:1332-1338. Using data CSFII from 1994 to 1996 and 1998, the researchers found that 37% of adults and 42% of children reported eating in fast-food establishments. On the basis of two non-consecutive twenty-four hour diet recalls, adults and children who reported eating fast foods had higher intakes of calories, fat, saturated fat, sodium, and soft drinks and lower intakes of vitamins A and C, milk, fruits and vegetables than people who did not eat fast food.
14. Pereira, MA et al. "Fast-Food Habits, Weight Gain, and Insulin Resistance (The CARDIA Study): 15-year Prospective Analysis." Lancet 2005;365:36-42. This study used data from the Coronary Artery Risk Development in Young Adults (CARDIA) study. The CARDIA study

included 3031 females and males from eighteen to thirty years of age in 1985/86, and included a follow-up fifteen years later. The analysis found that change in fast-food frequency was positively associated with changes in body weight. Those who frequented fast-food restaurants more than two times per week at baseline and follow-up gained an additional 4.5 kg (about 10 pounds) over the fifteen years and had a two-fold greater increase in insulin resistance.

15. Satia, JA et al. "Eating at Fast-Food Restaurants is Associated with Dietary Intake, Demographic, Psychosocial, and Behavioral Factors among African Americans in North Carolina." Public Health Nutrition 2004;7:1089-1096. This study considered a cross-sectional sample of 658 African-Americans from twenty to seventy years of age in North Carolina. The study found eating in fast-food restaurants to be associated with higher total fat intake, saturated fat intake, and lower vegetable intake. Frequent eaters in such establishments were more likely to be younger, never married, obese, and/or physically inactive.
16. Schmidt, M et al. "Fast-Food Intake and Diet Quality in Black and White Girls." Archives of Pediatric and Adolescent Medicine 2004;159:626-631. In a longitudinal multicenter cohort study of 2379 girls (ages 9 to 19 years), increased fast-food intake was associated with increased intake of energy and fat and saturated fat intake (as a percent of calories).
17. Thompson, O M et al. "Food Purchased Away From Home as a Predictor of Change in BMI z-score Among Girls." International Journal of Obesity 2004: 28:282-289. The researchers conducted a longitudinal growth study with girls eight to twelve years of age as the baseline with a follow-up when they were eleven to nineteen years of age. The study showed that at baseline, eating at quick service restaurants more often was associated with increases in BMI. This was most evident when quick service frequency was two times a week or greater.
18. Zoumas-Morse, C et al. "Children's Patterns of Macronutrient Intake and Associations with Restaurant and Home Eating." Journal of the American Dietetic Association 2001;101:923-925. This study combined data from two populations: 1) 376 children, seven to eleven years old; and 2) 435 adolescents, twelve to seventeen years old. It found that the largest consumption of calories took place in restaurants. The study found that children typically eat almost twice as many calories when they eat a meal at a restaurant (765 calories) compared to an average meal at home (425 calories). Children and adolescents also ate more energy from fat and saturated fat when eating at a restaurant compared to at home.

## **Appendix B: Summary of Findings: Influence of Nutrition Information Provision**

The following studies assessed if consumers can accurately estimate caloric content of their food choices, and, when reliable nutrition information was provided, how it affected people's food choices.

### *Burton, Creyer, Kees, and Higgins (2006)*

Burton and his colleagues (2006) explored how much the average consumer knows about the calories, fat and other macronutrient levels found in foods served at restaurants. Their results show that consumers substantially underestimated the levels of calories, fat, saturated fat and cholesterol found in many less healthful menu items. When objective, quantitative nutrition information was provided, consumers had more unfavorable attitudes towards the less healthful menu options. Consumers' purchase intentions for the less healthful items were also significantly diminished by the provision of nutrition information.

### *Backstrand et al, (1997)*

A study conducted by the Center for Science in the Public Interest and New York University found that even well-trained nutrition professionals could not accurately estimate the calorie content of typical restaurant meals. Although the dietitians were able to accurately estimate the caloric content of a cup of whole milk (the control in the study), they consistently underestimated the calories in restaurant foods and meals. Their estimations were off by large amounts – by 200 to 600 calories. For example, when shown a typical dinner-house hamburger and onion rings, the dietitians on average estimated that it had 865 calories, when it actually contained 1,550 calories. Since not even experts in the field of nutrition are able to accurately estimate the caloric content of restaurant foods, consumers are unlikely to do better.

### *Conklin, Lambert, and Cranage (2005)*

Conklin, Lambert, and Cranage examined the use of nutrition and ingredient information by college freshman at the point of sale in campus dining facilities. Results showed that females were more likely than males to use the nutrition information labels to make food choices. Females used to nutrition information to identify and select lower fat, lower calorie foods. These results confirm the findings of a previous research that found that the provision of nutrition information can have a positive influence on the food purchase behaviors of college students.

### *Kral et al. ( 2002)*

The relationship between dietary restraint (that is, whether or not the consumer was consciously trying to regulate food consumption for the purpose body weight regulation) and food intake differed depending on whether or not nutrition information was presented. While the intake of food by restrained eaters was not influenced by information provision, unrestrained eaters consumed less food when nutrition information was presented.

*Kozup, Creyer, and Burton (2003)*

A series of laboratory studies conducted by Kozup and his colleagues demonstrated that many consumers have very little knowledge of the high levels of calories, fat, and saturated fat found in many popular, less healthful restaurant items. For example, for some items such chicken fajitas and chef salad, actual calorie levels were twice what consumers expected. When levels of calories, fat, and saturated fat substantially exceeded consumers' expectations, the provision of nutrition information had a significant negative effect on product attitude, purchase intention, and choice. The authors suggest that the provision of nutrition information on restaurant menus could potentially have a positive impact on public health by reducing the consumption of less healthful menu items.

*Burton and Creyer (2004)*

Burton and Creyer found that when favorable nutrition information was presented on restaurant menus, consumers had more favorable attitudes toward the items and higher purchase intentions. When unfavorable nutrition information was presented, there was a negative influence on product attitudes and purchase intentions. The authors note that the results imply that if restaurants were required to disclose nutrition information, consumers would be more likely to choose more healthful menu items. In addition, requiring restaurants to provide nutrition information may encourage restaurants to improve the healthfulness of their menu options.

*Milich Anderson, and Mills (1976)*

In a study in a cafeteria setting, signs indicating the calorie content of available foods significantly decreased the number of calories that people purchased (Milich et al., 1976).

## References

Backstrand J, Wootan MG, Young LR, Hurley J. *Fat Chance*. Washington, DC: Center for Science in the Public Interest, 1997.

Burton S, Creyer EH. "What Consumers Don't Know Can Hurt Them: Consumer Evaluations and Disease Risk Perceptions of Restaurant Menu Items." *Journal of Consumer Affairs* 2004, vol. 38, no. 1, pp. 121-145.

Burton S, Creyer EH, Kees J, Huggins K. "Attacking the Obesity Epidemic: An Examination of the Potential Health Benefits of Nutrition Information Provision in Restaurants." *American Journal of Public Health*, forthcoming.

Conklin MT, Lambert CU, Cranage DA. "Nutrition Information at Point of Selection Could Benefit College Students." *Topics in Clinical Nutrition* 2005, vol. 20, no. 2, pp. 90-96.

Kozup KC, Creyer EH, Burton S. "Making Healthful Food Choices: The Influence of Health Claims and Nutrition Information on Consumers' Evaluations of Packaged Food Products and Restaurant Menu Items." *Journal of Marketing* 2003, vol. 67, pp. 19-34.

Kral TVE, Roe LS, Rolls BJ. "Does Nutrition Information about the Energy Density of Meals Affect Food Intake in Normal-Weight Women?" *Appetite* 2002, vol. 39, pp. 137-145.

Milich R, Anderson J, Mills M. "Effects of Visual Presentation of Caloric Values on Food Buying by Normal and Obese Persons." *Perceptual and Motor Skills* 1976, vol. 42, pp. 155-162.

**Appendix C**

# Frappucino

**BLENDED COFFEE****Caramel/Caramel Light**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
320/140 cal.	430/180 cal.	530/250 cal.

**Mocha/Mocha Light**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
310/140 cal.	420/180 cal.	530/250 cal.

**Coffee/Coffee Light**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
190/110 cal.	260/150 cal.	350/200 cal.

**Java Chip**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
370 cal.	510 cal.	650 cal.

**White Chocolate Mocha**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
240 cal.	320 cal.	450 cal.

**Peppermint Mocha**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
330 cal.	440 cal.	530 cal.

**LIGHTER OPTIONS**

- USE NONFAT MILK
- TRY SUGAR-FREE VANILLA AND HAZELNUT SYRUPS (0 cal)
- HOLD THE WHIPPED CREAM (approx 130 cal)
- TRY A PEPPERMINT LIGHT® BLENDED COFFEE

**BLENDED CRÈME****Strawberries & Crème**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
410 cal.	570 cal.	750 cal.

**Vanilla Bean**

<b>TALL 2.70</b>	<b>GRANDE 3.20</b>	<b>VENTE 3.70</b>
350 cal.	490 cal.	600 cal.

**Chocolate Chip**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
420 cal.	580 cal.	720 cal.

**Chai Tea**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
370 cal.	510 cal.	640 cal.

**Green Tea**

<b>TALL 3.25</b>	<b>GRANDE 3.75</b>	<b>VENTE 4.25</b>
390 cal.	550 cal.	690 cal.

**JUICE BLENDS****Tangerine**

<b>TALL 3.05</b>	<b>GRANDE 3.55</b>	<b>VENTE 4.05</b>
140 cal.	190 cal.	260 cal.

**Pomegranate**

<b>TALL 3.05</b>	<b>GRANDE 3.55</b>	<b>VENTE 4.05</b>
210 cal.	280 cal.	390 cal.

MADE WITH FRESHLY BREWED TAZO® TEA

## Espresso

			<b>Espresso</b>		
			<b>SOLO 1.40</b>	<b>DOPPIO 1.70</b>	
			5 cal.	10 cal.	
<b>Caffè Americano</b>					
<b>TALL 1.80</b>	<b>GRANDE 2.10</b>	<b>VENTE 2.45</b>			
10 cal.	15 cal.	25 cal.			
<b>Cappuccino</b>					
<b>TALL 2.45</b>	<b>GRANDE 3.00</b>	<b>VENTE 3.30</b>			
120 cal.	150 cal.	210 cal.			

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### CUSTOMIZE

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**MILK** SOY OR ORGANIC ADD 50  
**ESPRESSO** EXTRA SHOT ADD 50  
**SYRUP** CINNAMON • RASPBERRY • ALMOND  
 VANILLA or HAZELNUT (available sugar-free)  
 CARAMEL • TOFFEE NUT • PEPPERMINT ADD 50  
 20 cal. regular, 0 cal. sugar-free

<b>Caffè Latte</b>		
<b>TALL 2.45</b>	<b>GRANDE 3.00</b>	<b>VENTE 3.30</b>
200 cal.	260 cal.	340 cal.
<b>Caffè Mocha</b>		
<b>TALL 2.70</b>	<b>GRANDE 3.30</b>	<b>VENTE 3.60</b>
310 cal.	400 cal.	490 cal.
<b>Caramel Macchiato</b>		
<b>TALL 2.80</b>	<b>GRANDE 3.40</b>	<b>VENTE 3.70</b>
240 cal.	310 cal.	380 cal.
<b>White Chocolate Mocha</b>		
<b>TALL 3.15</b>	<b>GRANDE 3.70</b>	<b>VENTE 4.00</b>
340 cal.	450 cal.	580 cal.
<b>Vanilla Latte</b>		
<b>TALL 2.70</b>	<b>GRANDE 3.30</b>	<b>VENTE 3.60</b>
240 cal.	320 cal.	400 cal.
<b>Pumpkin Spice Latte</b>		
<b>TALL 3.15</b>	<b>GRANDE 3.70</b>	<b>VENTE 4.00</b>
360 cal.	480 cal.	580 cal.

## Holiday Favorites

			<b>Gingerbread Latte</b>		
<b>TALL 3.15</b>	<b>GRANDE 3.70</b>	<b>VENTE 4.00</b>			
330 cal.	430 cal.	520 cal.			
<b>Eggnog Latte</b>					
<b>TALL 3.15</b>	<b>GRANDE 3.70</b>	<b>VENTE 4.00</b>			
430 cal.	510 cal.	630 cal.			

<b>Peppermint Mocha</b>		
<b>TALL 3.15</b>	<b>GRANDE 3.70</b>	<b>VENTE 4.00</b>
370 cal.	470 cal.	560 cal.
<b>Peppermint Hot Chocolate</b>		
<b>TALL 2.70</b>	<b>GRANDE 2.95</b>	<b>VENTE 3.00</b>
400 cal.	510 cal.	650 cal.

CALORIES BASED ON BEVERAGES WITH WHOLE MILK.  
 SEE NUTRITION BROCHURE FOR CALORIES WITH SOY OR NONFAT MILK.



<b>HAMBURGER</b> \$2.49 280 cal.	<b>Wendy's CHOICES</b>	<b>CHEESEBURGER</b> \$2.69 320 cal.
<b>TURKEY &amp; CHEESE</b> \$2.99 250 cal.	<b>CHICKEN NUGGETS (4 NUGGETS)</b> \$3.19 190 cal.	<b>HAM &amp; CHEESE</b> \$2.99 240 cal.
<b>CHOOSE MILK OR A SOFT DRINK</b> <b>CHOOSE A SIDE</b>		

Ask for Special Toy for Child Under Age 3

Side Choices: Kids French Fries (210 cal.), Mandarin Oranges (80 cal.)  
or Yogurt w/Granola (250 cal.)

Beverage Choices: Kids Drink, 2% White (120 cal.) or 1% Chocolate Milk (170 cal.)

<b>SIDES</b>			
French Fries . . . . .	Small 370 cal.	Medium 429 cal.	1.69
Cheese Fries . . . . .	Small 280 cal.	Large 490 cal.	1.99
Chili . . . . .	Small 220 cal.	Large 330 cal.	1.99

Ask for a Nutrition Guide or Visit us at Wendy's.com

A 2,000 calorie daily diet is used as the basis for general nutrition advice. However, individual calorie needs may vary.

BEVERAGES Small/Medium/Large				
<b>Coca-Cola</b>	<b>Sprite</b>	<b>Minute Tapioca</b>	<b>Minute Tapioca</b>	<b>Minute Tapioca</b>
140/220/280 cal.	0/0/0 cal.	130/210/280 cal.	5/10/15 cal.	5/10/15 cal.
<b>Pepsi</b>	<b>7-Up</b>	<b>7-Up</b>	<b>7-Up</b>	<b>7-Up</b>
137/220/202 cal.	159/254/350 cal.	169/236/349 cal.	0/0/0 cal.	0/0/0 cal.
Fresh Brewed Iced Tea Sweetened, 80/130/180 cal.				
Small 1.19	Medium 1.49	Large 1.69		
<b>DAMN!</b> Bottled Water . . . . .	0 cal.	1.39		
Coffee / Hot Tea . . . . .	0/0 cal.	.79		
2% White or 1% Chocolate Milk . . . . .	120/170 cal.	.99		

<b>FIX 'N MIX</b>	<b>FROSTY</b>
Butterfinger	CHOCOLATE
M&M's	Vanilla
OREO	Vanilla
\$1.49	\$1.49
288 cal.	530 cal.

SUPER VALUE MENU		
Crispy Chicken Nuggets (5 pc)	230 cal.	.99
Crispy Chicken Sandwich	380 cal.	.99
Jr. Cheeseburger Deluxe	360 cal.	.99
Value Soft Drink	16 oz. 196 cal. Regular, 0 cal. Diet	.99
Strawberry Flavored Yogurt	with Granola 250 cal.	.99
Mandarin Oranges Cup	80 cal.	.99
Chili, Chips & Cheese	380 cal.	.99
Jr. Bacon Cheeseburger	370 cal.	1.29
Sour Cream & Chive Potato	320 cal.	1.29
Side Salad 35 cal. or Caesar Side Salad	80 cal.	1.29
Chili	220 cal.	1.29
French Fries	Small 370 cal.	1.39
Frosty Dairy Dessert	Small 320 cal.	1.49
SANDWICHES		
Jr. Hamburger	280 cal.	.89
Jr. Cheeseburger	320 cal.	.95
Danish	170 cal.	.99
Orange Juice	80 cal.	.99
We Accept		
Jr. Bacon Cheeseburger	370 cal.	2.99
DELUXE VALUE MEALS  (320 cal.)		